Boon Siang Yeo

List of Publications by Year
in descending order

85	11,211	53794 45	64796 79
papers	citations	h-index	g-index

86	86	86	12402
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Enhanced Activity of Gold-Supported Cobalt Oxide for the Electrochemical Evolution of Oxygen. Journal of the American Chemical Society, 2011, 133, 5587-5593.	13.7	1,264
2	Selective Electrochemical Reduction of Carbon Dioxide to Ethylene and Ethanol on Copper(I) Oxide Catalysts. ACS Catalysis, 2015, 5, 2814-2821.	11.2	741
3	In Situ Raman Study of Nickel Oxide and Gold-Supported Nickel Oxide Catalysts for the Electrochemical Evolution of Oxygen. Journal of Physical Chemistry C, 2012, 116, 8394-8400.	3.1	609
4	<i>In Situ</i> Raman Spectroscopy of Copper and Copper Oxide Surfaces during Electrochemical Oxygen Evolution Reaction: Identification of Cu^{III} Oxides as Catalytically Active Species. ACS Catalysis, 2016, 6, 2473-2481.	11.2	592
5	Tuning the Selectivity of Carbon Dioxide Electroreduction toward Ethanol on Oxide-Derived Cu_{<i>x</i>}Zn Catalysts. ACS Catalysis, 2016, 6, 8239-8247.	11.2	539
6	Understanding heterogeneous electrocatalytic carbon dioxide reduction through operando techniques. Nature Catalysis, 2018, 1, 922-934.	34.4	515
7	Electrochemical Reduction of CO₂ Using Copper Single-Crystal Surfaces: Effects of CO* Coverage on the Selective Formation of Ethylene. ACS Catalysis, 2017, 7, 1749-1756.	11.2	507
8	Efficient hydrogen evolution reaction catalyzed by molybdenum carbide and molybdenum nitride nanocatalysts synthesized via the urea glass route. Journal of Materials Chemistry A, 2015, 3, 8361-8368.	10.3	364
9	Single Molecule Tip-Enhanced Raman Spectroscopy with Silver Tips. Journal of Physical Chemistry C, 2007, 111, 1733-1738.	3.1	314
10	Stable and selective electrochemical reduction of carbon dioxide to ethylene on copper mesocrystals. Catalysis Science and Technology, 2015, 5, 161-168.	4.1	292
11	Catalytic Activities of Sulfur Atoms in Amorphous Molybdenum Sulfide for the Electrochemical Hydrogen Evolution Reaction. ACS Catalysis, 2016, 6, 861-867.	11.2	280
12	Tip-enhanced Raman Spectroscopy â€“ Its status, challenges and future directions. Chemical Physics Letters, 2009, 472, 1-13.	2.6	229
13	The effects of currents and potentials on the selectivities of copper toward carbon dioxide electroreduction. Nature Communications, 2018, 9, 925.	12.8	214
14	Mechanistic Insights into the Enhanced Activity and Stability of Agglomerated Cu Nanocrystals for the Electrochemical Reduction of Carbon Dioxide to <i>n</i>-Propanol. Journal of Physical Chemistry Letters, 2016, 7, 20-24.	4.6	211
15	Operando Raman Spectroscopy of Amorphous Molybdenum Sulfide (MoS_{<i>x</i>}) during the Electrochemical Hydrogen Evolution Reaction: Identification of Sulfur Atoms as Catalytically Active Sites for H⁺ Reduction. ACS Catalysis, 2016, 6, 7790-7798.	11.2	210
16	Investigating the Role of Copper Oxide in Electrochemical CO₂ Reduction in Real Time. ACS Applied Materials & Interfaces, 2018, 10, 8574-8584.	8.0	207
17	Characterization of Electrocatalytic Water Splitting and CO₂ Reduction Reactions Using In Situ/Operando Raman Spectroscopy. ACS Catalysis, 2017, 7, 7873-7889.	11.2	196
18	Surface multiheme <i>c</i> -type cytochromes from <i>Thermincola potens</i> and implications for respiratory metal reduction by Gram-positive bacteria. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 1702-1707.	7.1	178

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19	Interface confined hydrogen evolution reaction in zero valent metal nanoparticles-intercalated molybdenum disulfide. Nature Communications, 2017, 8, 14548.	12.8	174
20	Mechanistic Insights into the Selective Electroreduction of Carbon Dioxide to Ethylene on Cu₂O-Derived Copper Catalysts. Journal of Physical Chemistry C, 2016, 120, 20058-20067.	3.1	164
21	Enhanced Catalysis of the Electrochemical Oxygen Evolution Reaction by Iron(III) Ions Adsorbed on Amorphous Cobalt Oxide. ACS Catalysis, 2018, 8, 807-814.	11.2	163
22	Nanoscale Roughness on Metal Surfaces Can Increase Tip-Enhanced Raman Scattering by an Order of Magnitude. Nano Letters, 2007, 7, 1401-1405.	9.1	160
23	On the Role of Sulfur for the Selective Electrochemical Reduction of CO₂ to Formate on CuS_{<i>x</i>} Catalysts. ACS Applied Materials & Interfaces, 2018, 10, 28572-28581.	8.0	157
24	Performing tipâ€enhanced Raman spectroscopy in liquids. Journal of Raman Spectroscopy, 2009, 40, 1392-1399.	2.5	156
25	Enhancing CO₂ Electroreduction to Ethanol on Copperâ€"Silver Composites by Opening an Alternative Catalytic Pathway. ACS Catalysis, 2020, 10, 4059-4069.	11.2	145
26	Towards chemical analysis of nanostructures in biofilms II: tip-enhanced Raman spectroscopy of alginates. Analytical and Bioanalytical Chemistry, 2008, 391, 1907-1916.	3.7	138
27	Understanding the Heterogeneous Electrocatalytic Reduction of Carbon Dioxide on Oxideâ€Derived Catalysts. ChemElectroChem, 2018, 5, 219-237.	3.4	126
28	Identification of Hydroperoxy Species as Reaction Intermediates in the Electrochemical Evolution of Oxygen on Gold. ChemPhysChem, 2010, 11, 1854-1857.	2.1	120
29	â€"CH₃ Mediated Pathway for the Electroreduction of CO₂ to Ethane and Ethanol on Thick Oxide-Derived Copper Catalysts at Low Overpotentials. ACS Energy Letters, 2017, 2, 2103-2109.	17.4	117
30	Electrochemical Reduction of Carbon Dioxide to Ethane Using Nanostructured Cu₂O-Derived Copper Catalyst and Palladium(II) Chloride. Journal of Physical Chemistry C, 2015, 119, 26875-26882.	3.1	115
31	Tip-Enhanced Raman Spectroscopy Can See More:â€‰ The Case of Cytochrome c. Journal of Physical Chemistry C, 2008, 112, 4867-4873.	3.1	113
32	Long-chain hydrocarbons by CO2 electroreduction using polarized nickel catalysts. Nature Catalysis, 2022, 5, 545-554.	34.4	107
33	Effects of Electrolyte Anions on the Reduction of Carbon Dioxide to Ethylene and Ethanol on Copper (100) and (111) Surfaces. ChemSusChem, 2018, 11, 3299-3306.	6.8	106
34	Rational Design of Sulfurâ€Doped Copper Catalysts for the Selective Electroreduction of Carbon Dioxide to Formate. ChemSusChem, 2018, 11, 320-326.	6.8	102
35	Enhanced Electroreduction of Carbon Dioxide to Methanol Using Zinc Dendrites Pulseâ€Deposited on Silver Foam. Angewandte Chemie - International Edition, 2019, 58, 2256-2260.	13.8	98
36	On the chemical state of Co oxide electrocatalysts during alkaline water splitting. Physical Chemistry Chemical Physics, 2013, 15, 17460.	2.8	89

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37	Nanoscale Probing of a Polymerâ€Blend Thin Film with Tipâ€Enhanced Raman Spectroscopy. Small, 2009, 5, 952-960.	10.0	88
38	Towards rapid nanoscale chemical analysis using tip-enhanced Raman spectroscopy with Ag-coated dielectric tips. Analytical and Bioanalytical Chemistry, 2007, 387, 2655-2662.	3.7	86
39	Near-Field Heating, Annealing, and Signal Loss in Tip-Enhanced Raman Spectroscopy. Journal of Physical Chemistry C, 2008, 112, 2104-2108.	3.1	83
40	Enhancement of Raman Signals with Silver-Coated Tips. Applied Spectroscopy, 2006, 60, 1142-1147.	2.2	73
41	Recent advances in understanding mechanisms for the electrochemical reduction of carbon dioxide. Current Opinion in Electrochemistry, 2018, 8, 126-134.	4.8	71
42	The importance of morphology on the activity of lead cathodes for the reduction of carbon dioxide to formate. Journal of Materials Chemistry A, 2019, 7, 4093-4101.	10.3	62
43	Electrochemical Reduction of Carbon Dioxide to 1â€Butanol on Oxideâ€Derived Copper. Angewandte Chemie - International Edition, 2020, 59, 21072-21079.	13.8	57
44	Electrochemical conversion of carbon dioxide to high value chemicals using gas-diffusion electrodes. Current Opinion in Chemical Engineering, 2019, 26, 112-121.	7.8	53
45	Rutheniumâ€“Tungsten Composite Catalyst for the Efficient and Contamination-Resistant Electrochemical Evolution of Hydrogen. ACS Applied Materials & Interfaces, 2018, 10, 6354-6360.	8.0	51
46	Enhanced activity of H2O2-treated copper(ii) oxide nanostructures for the electrochemical evolution of oxygen. Catalysis Science and Technology, 2016, 6, 269-274.	4.1	48
47	Tuning the resonance frequency of Ag-coated dielectric tips. Optics Express, 2007, 15, 8309.	3.4	46
48	Efficient and Stable Evolution of Oxygen Using Pulse-Electrodeposited Ir/Ni Oxide Catalyst in Fe-Spiked KOH Electrolyte. ACS Applied Materials & Interfaces, 2016, 8, 15985-15990.	8.0	46
49	Crystal structure and surface characteristics of Sr-doped GdBaCo₂O_{6âˆ’Î´} double perovskites: oxygen evolution reaction and conductivity. Journal of Materials Chemistry A, 2018, 6, 5335-5345.	10.3	42
50	Multifunctional microscope for far-field and tip-enhanced Raman spectroscopy. Review of Scientific Instruments, 2006, 77, 023104.	1.3	41
51	Towards chemical analysis of nanostructures in biofilms I: imaging of biological nanostructures. Analytical and Bioanalytical Chemistry, 2008, 391, 1899-1905.	3.7	39
52	Continuous Production of Ethylene from Carbon Dioxide and Water Using Intermittent Sunlight. ACS Sustainable Chemistry and Engineering, 2017, 5, 9191-9199.	6.7	39
53	A Strategy to Prevent Signal Losses, Analyte Decomposition, and Fluctuating Carbon Contamination Bands in Surface-Enhanced Raman Spectroscopy. Applied Spectroscopy, 2008, 62, 708-713.	2.2	38
54	Formation of Câ€“C bonds during electrocatalytic CO₂reduction on non-copper electrodes. Journal of Materials Chemistry A, 2020, 8, 23162-23186.	10.3	36

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55	Oxygen evolution by stabilized single Ru atoms. Nature Catalysis, 2019, 2, 284-285.	34.4	35
56	Isolation and Identification of Surface-Bound Acetone Enolate on Ni(111). Journal of the American Chemical Society, 2002, 124, 4970-4971.	13.7	33
57	Mechanistic Study of the Synergy between Iron and Transition Metals for the Catalysis of the Oxygen Evolution Reaction. ChemSusChem, 2018, 11, 3790-3795.	6.8	32
58	Selectivity Map for the Late Stages of CO and CO₂ Reduction to C₂ Species on Copper Electrodes. Angewandte Chemie - International Edition, 2021, 60, 10784-10790.	13.8	30
59	The Role of Undercoordinated Sites on Zinc Electrodes for CO₂ Reduction to CO. Advanced Functional Materials, 2022, 32, .	14.9	30
60	Practices for the collection and reporting of electrocatalytic performance and mechanistic information for the CO₂reduction reaction. Catalysis Science and Technology, 2017, 7, 5820-5832.	4.1	29
61	How symmetry factors cause potential- and facet-dependent pathway shifts during CO2 reduction to CH4 on Cu electrodes. Applied Catalysis B: Environmental, 2021, 285, 119776.	20.2	28
62	Enhanced catalysis of the electrochemical hydrogen evolution reaction using composites of molybdenum-based compounds, gold nanoparticles and carbon. Physical Chemistry Chemical Physics, 2016, 18, 21548-21553.	2.8	25
63	Mechanistic routes toward C₃ products in copper-catalysed CO₂ electroreduction. Catalysis Science and Technology, 2022, 12, 409-417.	4.1	24
64	Electrochemical Reduction of Carbon Dioxide to 1â€Butanol on Oxideâ€Derived Copper. Angewandte Chemie, 2020, 132, 21258-21265.	2.0	19
65	Tipâ€enhanced Raman spectroscopy reveals rich nanoscale adsorption chemistry of 2â€mercaptopyridine on Ag. Israel Journal of Chemistry, 2007, 47, 177-184.	2.3	16
66	Surface Functionalization of Ni(111) with Acrylate Monolayers. Langmuir, 2003, 19, 2787-2794.	3.5	14
67	Toward Efficient Tandem Electroreduction of CO₂ to Methanol using Anodized Titanium. ACS Catalysis, 2021, 11, 8467-8475.	11.2	13
68	Size and Composition Control of Ptâ€"In Nanoparticles Prepared by Seed-Mediated Growth Using Bimetallic Seeds. Langmuir, 2012, 28, 3345-3349.	3.5	12
69	Production of C₃â€"C₆ Acetate Esters via CO Electroreduction in a Membrane Electrode Assembly Cell. Angewandte Chemie - International Edition, 2022, 61, .	13.8	12
70	Methods for Molecular Nanoanalysis. Chimia, 2006, 60, 783-788.	0.6	9
71	Enhanced Electroreduction of Carbon Dioxide to Methanol Using Zinc Dendrites Pulseâ€Deposited on Silver Foam. Angewandte Chemie, 2019, 131, 2278-2282.	2.0	7
72	Efficient growth of ordered thin oxide films on Ni by NO2 oxidation. Surface Science, 2004, 557, 201-207.	1.9	5

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73	Mechanistic Insights into the Selective Electroreduction of Crotonaldehyde to Crotyl Alcohol and 1â€Butanol. ChemSusChem, 2021, 14, 2963-2971.	6.8	5
74	Polaron Delocalization Dependence of the Conductivity and the Seebeck Coefficient in Doped Conjugated Polymers. Journal of Physical Chemistry B, 2022, 126, 2073-2085.	2.6	5
75	Electrocatalysts for the Selective Reduction of Carbon Dioxide to Useful Products. Chimia, 2015, 69, 131.	0.6	4
76	Catalysts for the Electrochemical Reduction of Carbon Dioxide to Methanol. Journal of Electrochemical Energy Conversion and Storage, 2020, 17, .	2.1	4
77	Investigating synergistic interactions of group 4, 5 and 6 metals with gold nanoparticles for the catalysis of the electrochemical hydrogen evolution reaction. Physical Chemistry Chemical Physics, 2017, 19, 20861-20866.	2.8	3
78	Selectivity Map for the Late Stages of CO and CO 2 Reduction to C 2 Species on Copper Electrodes. Angewandte Chemie, 2021, 133, 10879-10885.	2.0	3
79	Production of C₃â€“C₆ Acetate Esters via CO Electroreduction in a Membrane Electrode Assembly Cell. Angewandte Chemie, 2022, 134, .	2.0	3
80	Editorial: â€˜Electrochemical reduction of carbon dioxide by heterogenous and homogeneous catalysts: experiment and theoryâ€™. Catalysis Today, 2017, 288, 1.	4.4	0
81	Electrochemical Carbon Dioxide Reduction on Cu-Zn Bimetallic Catalysts with Enhanced Ethanol Selectivity. ECS Meeting Abstracts, 2017, , .	0.0	0
82	(Invited) Tuning the Selectivity of Carbon Dioxide Electroreduction Using Copper-Based Catalysts. ECS Meeting Abstracts, 2017, , .	0.0	0
83	(Invited) Developing Efficient Electrocatalysts for the Hydrogen and Oxygen Evolution Reactions. ECS Meeting Abstracts, 2017, , .	0.0	0
84	Enhanced Electroreduction of Carbon Dioxide to Methanol Using Zinc Dendrites Pulse-deposited on Silver Foam. ECS Meeting Abstracts, 2019, , .	0.0	0
85	(Invited) Electrochemical Reduction of Carbon Dioxide: Controlling Selectivity to Formic Acid and Methanol. ECS Meeting Abstracts, 2019, , .	0.0	0